AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A device for the production of nanotubes, fullerene and their derivatives comprising: a vacuum chamber 1 having an input port 2 and an evacuation port 3, a high frequency generator 9, an inductor 8 inside of vacuum chamber 1 powered by said high frequency generator 9, a graphite element 5 mounted in said vacuum chamber 1, an electromagnetic field generated around the inductor 8; an inert gas supplied to the graphite element 5 and the inductor 8 between the inlet port 2 and evacuation port 3, causing a continuous heating by induced eddy currents and consequent vaporization of the graphite element 5 and, at the same time, forming a plasma 10 that stays partially inside and beyond the inductor 8 around a heating end of the graphite element 5.

Claim 2 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to the claim 1, further comprising a second inductor 12, said inductor 12 powered by a high frequency generator 13, to form a second electromagnetic field around inductor 12 to produce a second plasma 14 with the inert gas and graphite vapors that made the previous plasma 10.

Claim 3 (previously canceled)

Claim 4 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to the claim 1, wherein the graphite element 5 is formed from at least two rods 5, 7, said rods being shaped in a such way to stack up and to support themselves.

Claim 5 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to the claim 1, further comprising an injection device 15 for injecting powders and/or liquid or gas inside the inductor 8.

Claim 6 (currently amended): A method for the production of nanotubes, fullerene and their derivatives in an environment where a inert gas flow is present at atmospheric pressure or at a lower pressure with respect to atmospheric pressure, a high frequency electromagnetic field is generated, comprising the steps of subjecting one end of a graphite element 5 to said electromagnetic field and heating said graphite element to vaporization and simultaneously causing the formation and the persistence of a plasma 10 around the vaporization zone of the same graphite element 5.

Claim 7 (currently amended): The method for the production of nanotubes, fullerene and their derivatives according to claim 6, further comprising the steps of generating a second plasma 14 from a second high frequency electromagnetic field.

Claim 8 (previously canceled)

Claim 9 (previously canceled)

Claim 10 (previously canceled)

Claim 11 (previously canceled)

Claim 12 (previously canceled)

Claim 13 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to claim 1, wherein for the collection of nanotubes, fullerene and their derivatives a device is installed at the exit of evacuation port 3.

Claim 14 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to claim 2, wherein for the collection of nanotubes, fullerene and their derivatives a device is installed at the exit of evacuation port 3.

Claim 15 (currently amended): The method for the production of nanotubes, fullerene and their derivatives according to claim 6, further comprising a continuous method picking up nanotubes, fullerene and their derivatives by means of a device placed at the exit of evacuation port 3.

Claim 16 (currently amended): The method for the production of nanotubes, fullerene and their derivatives according to claim 7, further comprising a continuous method picking up nanotubes, fullerene and their derivatives by means of a device placed at the exit of evacuation port 3.

Claim 17 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to claim 1, wherein the graphite element 5 is made up of graphite with a purity not lower than 90%.

Claim 18 (currently amended): The method for the production of nanotubes, fullerene and their derivatives according to claim 6, wherein the graphite element 5 is made up of graphite with a purity not lower than 90%.

Claim 19 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to claim 1, wherein the graphite element 5 is doped or added with other substances solid and/or liquid.

Claim 20 (currently amended): The method for the production of nanotubes, fullerene and their derivatives according to claim 6, wherein the graphite element 5 is doped or added with other substances solid and/or liquid.

Claim 21 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to the claim 19, wherein the graphite element 5 includes catalyst metal.

Claim 22 (currently amended): The method for the production of nanotubes, fullerene and their derivatives according to the claim 20, wherein the graphite element 5 includes catalyst metal.

Claim 23 (currently amended): The device for the production of nanotubes, fullerene and their derivatives according to the claim 21, wherein the graphite element 5 includes catalyst metal selected from the group consisting of Co, Ni, Sc, V, Cr, Fe, Cu, Y, Zr, Nb, Mo, Pd, Ta, W, Au, Th, U, La, Ce, Pr, Nd, Gd, Tb, Dy, Ho, Er, Tm, Lu.

Claim 24 (currently amended): The method for the production of nanotubes, fullerene and their derivatives according to the claim 22, wherein the graphite element 5 includes catalyst metal selected from the group consisting of Co, Ni, Sc, V, Cr, Fe, Cu, Y, Zr, Nb, Mo, Pd, Ta, W, Au, Th, U, La, Ce, Pr, Nd, Gd, Tb, Dy, Ho, Er, Tm, Lu.

Claim 25 (new): The device for the production of nanotubes, fullerene and their derivatives according to the claim 1, wherein the output of said high frequency generator 9 has a frequency value of approximately 800 kHz and the electromagnetic field generated from inductor 8 transmits to graphite rod 5 a power of approximately 2.5 kW for each square centimeter of graphite rod surface faced to the inductor.